

ES&H manual

Environment, Safety, and Health

Volume IV

Part 41: Quality Assurance and Configuration Management

Document 41.3 Suspect/Counterfeit Items

Recommended for approval by the ES&H Working Group

Approved by: Glenn L. Mara
Deputy Director for Operations

New document or new requirements

Approval date: June 30, 2004

- ☐ New document
☒ Major requirement change

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This work performed under the auspices of the U.S. Department of Energy by University of California Lawrence Livermore National Laboratory under Contract W-7405-ENG-48.

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* Major Revision

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Suspect/Counterfeit Items

1.0 Introduction

The counterfeiting of industrial materials is an international problem that puts worker safety, program objectives, and expensive equipment at risk. This *Environment, Safety and Health (ES&H) Manual* document describes the procedures for minimizing the introduction of, identifying, removing (or isolating), and, in some cases, approving the retention of suspect/counterfeit items (S/CI) that inadvertently may have been placed into service. These procedures specifically addresses work conducted at the Lawrence Livermore National Laboratory (LLNL) and apply to stock items, parts inventories, facilities, and equipment assemblies that may be exposed to S/CI.

The term “S/CI,” is also known as “S/C item” and includes S/C materials and S/C parts. The term is defined as industrial parts, equipment, materials, and other items acquired in good faith without knowing they are fraudulent, counterfeit, substandard, or hazardous. (See Appendix A for definitions of other terms used in this document.) Items that are commonly counterfeited include high-strength mechanical fasteners (e.g., bolts, washers, and nuts), lifting equipment (e.g., slings, shackles, and clevises), valves, pipe-fittings, flanges, electrical circuit breakers, relays, connectors and other electronic components, lubricants, and adhesives.

Suspect/counterfeit items typically are:

- Fraudulently sold as new even though they are used, rebuilt, or reconditioned.
- Fraudulently marked or labeled as being manufactured by a well-known, reputable company.
- Produced with inferior materials or processes that create a potential for product failure and exposure to hazards.

2.0 Hazards

Mechanical fasteners (e.g., bolts) and electrical circuit breakers are the most common examples of S/CI cited by general industry. Undetected S/CI can cause electrical or mechanical failure that may lead to death, personnel injury, or property damage. Safety systems are defined by the Department of Energy (DOE) as “those systems, components, or structures whose failure could adversely affect the environment, safety, or health of

the public or the health or safety of workers” pose a particularly serious hazard in the case of failure (See DOE Order 440.1A, “Worker Protection Management for DOE Federal and Contractor Employees,” Attachment 2, “Contractor Requirement Document,” Sections 22, item a. 4.) This definition is very broad, LLNL has evaluated systems through-out LLNL and prepared the list of items determined to be safety systems within the context of S/CI. This list is in Appendix C.

3.0 Controls for Suspect/Counterfeit Items

This section describes how to:

- Develop an awareness of the problem of S/CI.
- Implement controls to minimize the potential for procurement or receipt of S/CI.
- Instruct personnel on how to identify S/CI.
- Assess stock and parts inventories, facilities, and equipment assemblies to discover S/CI.
- Report discovered S/CI.
- Document the disposition (i.e., leave-in-use or removal) of discovered S/CI.
- Handle discovered S/CI.

Workers writing evaluations of S/CI installed in safety systems or applications shall consider potential risks to the public and workers, address cost/benefit considerations, and include a schedule for replacement, if replacement is required. The DOE Suspect Fastener Headmark List (Appendix B) is an example of an aid for evaluations, inspections, and self-assessments.

Figure 1 is a flowchart that outlines the process for controlling S/CI. These processes are detailed in Sections 3.1 through 3.4 of this document.

Additional information can be obtained from the S/CI Subject Matter Experts (SMEs) listed on the following intranet address:

http://www-r.llnl.gov/es_and_h/esh-manual/esh_contact.pdf

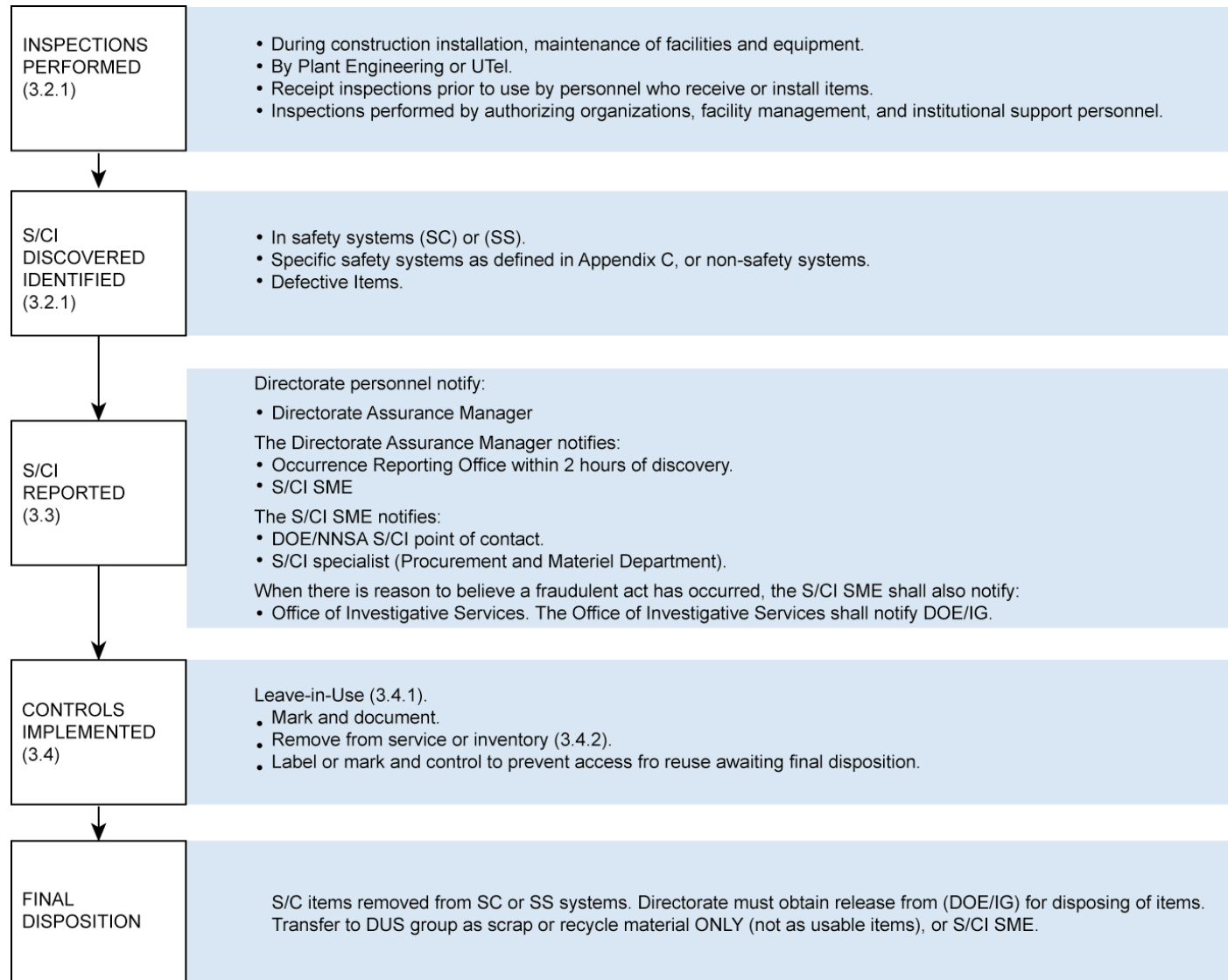


Figure 1. Process for controlling S/CI.

3.1 Minimizing the Introduction of Suspect Counterfeit Items

Workers in organizations performing design, procurement, fabrication, and receiving functions shall take precautions to minimize the potential of S/CI being introduced into LLNL's facilities and equipment. Workers in design and maintenance organizations shall ensure that the procedures for specification, design, construction, modification, fabrication, inspection, acceptance, maintenance, and operation of equipment and facilities minimize the likelihood of the purchase and introduction of S/CI.

At LLNL, parts and materials are purchased directly from vendors by Procurement and Materiel Department buyers or by authorized Technical Release Representatives (TRRs). Subcontractors also may supply S/CI (e.g., in an assembly) as part of a contract. In all cases, efforts shall be made to prevent the purchase and use of S/CI.

3.2 Process for Identifying Suspect/Counterfeit Items

Inspections and training are the two primary processes by which S/CI can be identified. Training is discussed in Section 4.0 of this document.

3.2.1 Inspections

Laboratory personnel shall perform field inspections to minimize the introduction and use of S/CI in equipment and facilities and to identify S/CI that inadvertently may have been placed in service. The three main types of inspections are:

1. Inspections performed by Plant Engineering Department personnel to identify S/CI during construction, installation, and maintenance of facilities and equipment.
2. Inspections of items, prior to use, by personnel who receive or install items.
3. Inspections that authorizing organizations personnel, facility management, and institutional support personnel may perform to identify S/CI during formal and informal walk-throughs of facilities.

LLNL has identified and listed types of safety systems in Appendix C, as required by DOE. See Document 41.2, "Configuration Management Program Description," in the *ES&H Manual* for specific elements that need to be listed for Safety Class structures, systems, and components (SC-SSC) and Safety Significant structures, systems, and components (SS-SSC).] The equipment and parts associated with safety systems shall be inspected for S/CI as part of the directorate self-assessment program. (For specific items and inspection responsibilities, see Appendix C.) Although the depth of inspection depends on what is to be inspected, inspection basically should consist of a physical inspection of installed equipment or parts in storage (e.g., those in storage

bins). (See Appendix D for an Example of a S/CI self-assessment worksheet. Lessons Learned have been incorporated into this worksheet.)

The inspection may include a physical walk-through of safety systems and applications. Inspections are not intended to disrupt or shut down processes or operations, or to take assembled equipment or components apart, except when outward physical appearance indicate that an S/CI is present and further disassembly is needed to confirm the presence or extent of S/CI. (A list of S/CI indicators is given in Appendix E.) However, if disassembly could interrupt an ongoing process or operation, then the authorizing individual shall decide, based on an engineering evaluation, whether or not the process or operation should continue until a more convenient time. Further inspection may even be postponed until the next planned maintenance shutdown.

When S/CI are identified in a safety system, workers shall consider the consequences of failure when determining the appropriate control and disposition actions. In addition, the items shall be reported in accordance with Section 3.3.

When non-conforming items are discovered, the items shall be evaluated to determine if they are suspect/counterfeit or defective items as soon as practicable not to exceed five working days.

3.3 Reporting

Upon discovery of any S/CI other than office supplies, office equipment, or household products, an occurrence report shall be prepared and the directorate personnel shall report the S/CI to the Directorate Assurance Manager. The Directorate Assurance Manager notifies:

- Occurrence Reporting Office (within 2 hours of discovery).
- And works with the S/CI SME.

The S/CI SME notifies:

- DOE/NNSA S/CI point of contact.
- S/CI specialist (Procurement and Materiel Department).

When there is reason to believe that a fraudulent act has occurred, the S/CI SME shall also notify the Office of Investigative Services (Safeguards and Security organization). The Office of Investigative Services shall then notify the DOE/IG.

Contact the directorate Assurance Manager or the LLNL Occurrence Reporting Office for guidance on preparing occurrence reports. Appendix F contains an excerpt from Document 4.3, "LLNL Implementation Procedures for DOE O 231.1A and DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information," in the *ES&H*

Manual. This excerpt contains examples of S/CI that require formal occurrence reporting.

3.4 Control

Identified S/CI are controlled to facilitate possible prosecution by the DOE/Inspector General (DOE/IG) and to prevent return to service.

The Facility Manager, or the Responsible Individual for the equipment (depending on the use or location of the S/CI), is responsible for ensuring that the leave-in-use decision (see Section 3.4.1), removal (see Section 3.4.2), or control is documented and that identified S/CI is clearly labeled and marked.

3.4.1 Leave-in-Use

Suspect/counterfeit items discovered in the field can be approved for leave-in-use following appropriate review and analysis. If S/CI are used in a safety system, the leave-in-use acceptance criteria shall be documented by signed statement of a licensed professional engineer (the system engineer for SC-SSC or SS-SSC), or the items shall be tested and documented in accordance with industry standards. S/CI that are not used in a safety system (e.g., office supplies, office equipment, or household products) and that are acceptable to leave in place shall be permanently marked for easy identification. For example, in cases involving S/C fasteners, orange paint may be applied to each leave-in-use item to show that the item has been identified, evaluated, documented, and approved for leave-in-use. Other means of marking S/CI are acceptable, provided they are appropriately implemented and documented.

3.4.2 Removal

All S/CI removed from service or storage shall be appropriately controlled to ensure they are not returned to service, and to facilitate possible future action by the Procurement and Materiel Department, the Safeguards and Security Department, and the DOE/IG.

The Facility Manager, or the Responsible Individual for the equipment from which S/CI are removed, shall control and retain the S/CI to ensure that the items are not returned to service.

Directorates can either transfer custody of S/CI removed from non-safety systems to the Donation, Utilization, and Sales (DUS) Group as scrap or recycle material ONLY, (not as usable items; see Section 5.1) or the S/CI SME. When S/CI are removed from safety systems, directorates shall obtain a release from the DOE/IG. If the DOE/IG releases the S/CI, the management responsible for the equipment or facility delivers the

items to the DUS Group for disposal or to the S/CI SME. Upon receipt, the DUS Group or the S/CI SME shall ensure that identified S/CI are appropriately controlled and disposed of so that the items cannot be refurbished, repaired, or otherwise put into service. Under no circumstances shall these items be sold or returned to the general public as usable items.

4.0 Training

Organization personnel shall identify individuals who are to receive training in S/CI inspections and identification. At a minimum, these individuals should receive information appropriate for the commodities, facilities, equipment, parts, and materials to be inspected or assessed.

1. Course #HS5955: "Suspect/Counterfeit Item Awareness Training."
 - This training is required for Associate Director Facility Managers (ADFM's); Facility Managers (FM's); Senior Purchasing Managers; Superintendents/Group Leaders from PE Maintenance & Operations, Construction, Fleet, UTEL (electrical and mechanical utilities), Electrical Engineering, and Mechanical Engineering; PE Shops Supervisors; and TRRs.
2. Course #HS5954: "Suspect/Counterfeit Items Training."
 - Organization supervisors shall identify individuals who are to receive this training to assist in S/CI inspections and identification. Possible attendees should include procurement subcontract administrators (buyers), construction inspectors, riggers, and safety professionals. Personnel involved in equipment maintenance and operations, quality assurance, material receiving, facility operations, design, and system engineering should also attend.
3. Technical Release Representatives receive initial awareness S/CI training during new TRR orientation.

5.0 Responsibilities

General responsibilities for all workers are described in Document 2.1, "Laboratory and ES&H Policies, General Worker Responsibilities, and Integrated Safety Management," in the *ES&H Manual*. Specific responsibilities for S/CI are listed below by department or job responsibility.

Additional specific responsibilities for Sections 5.1, 5.3, 5.5, and 5.7 are listed in Appendix C.

5.1 Workers

Workers who receive or install materials from vendors, contractors, or other onsite sources (e.g., DUS or parts bins) shall:

- Inspect those materials to ensure that S/CI are not introduced into inventory or used.
- Take required training in the identification of S/CI (see Section 4.0).

When S/CI are identified, the identifying worker(s) shall:

- Report the items (in accordance with Section 3.3).
- Mark them appropriately (see Section 3.4).
- Forward them to DUS (for disposal as scrap or recycle material), the S/CI SME, or the S/CI Working Group member.

5.2 Technical Release Representatives

Technical release representatives shall:

- Purchase fasteners only from approved suppliers. (The Procurement and Materiel Department maintains a list of approved suppliers of fasteners; see Sections 5.4 and 5.7.)
- Contact the buyer in the Procurement and Materiel Department for assistance if there is any question about the reliability of a supplier or parts and materials.

5.3 Work Supervisors

Work supervisors shall ensure that:

- Workers who receive equipment or materials to be used in safety systems, or who conduct inspections, have training in the identification of S/CI (see Section 4.0).
- Fasteners are received only from approved suppliers. A list of approved suppliers can be found at the following intranet address:

<http://www-r.llnl.gov/pm/trr/html/fastasl.html>

- Specifications established in LLNL purchase orders and subcontracts are met before products are accepted.
- Parts and materials are inspected upon receipt to prevent the use of S/CI.
- Subcontractor employees who procure or handle potential S/CI have reviewed the information sheet on the LLNL S/CI processes and procedures, found on the Procurement and Materiel Quality News Page at:

<http://www-r.llnl.gov/pm/quality/index.html>.

5.4 Procurement and Materiel Department

The Procurement and Materiel Department shall ensure that:

- Prospective suppliers have an appropriate quality control program in place to prevent S/CI from entering their supplier network.
- Suppliers are appropriately monitored for quality assurance requirements.
- Manufacturers assign lot numbers to products to maintain product traceability.
- Certified material test reports for specified products are obtained from, or maintained by, the manufacturer.
- A list of approved suppliers for fasteners is developed and maintained.

Furthermore, the Procurement and Materiel Department, when responsible for handling a procurement action involving materials of concern, shall ensure that:

- Suspect/counterfeit item requirements are appropriately specified in subcontracts to preclude the purchase or introduction of S/CI. This requirement applies to all subcontractors who perform construction or maintenance work at the Laboratory.
- References to national codes and standards, LLNL specifications, and the DOE Suspect Fastener Headmark List (see Appendix B) are included in subcontract documents to mitigate the possibility of receiving S/CI.
- An information sheet on LLNL S/CI is provided in the contract package to subcontractors for employees that procure or handle potential S/CI.

5.5 Plant Engineering Department and Other Engineering or Design Organizations

These organizations shall ensure that:

- Designs, specifications, fabrications, assemblies, construction projects, mockups, and other equipment and materials are reviewed and inspected to prevent the introduction of S/CI into the Laboratory's inventory.

The Plant Engineering Department also shall:

- Help identify S/CI that inadvertently may have been placed in service. Such inspections may be carried out as routine or non-routine inspections or during maintenance or preventative maintenance programs.

5.6 Donation, Utilization, and Sales Group

The DUS Group shall:

- Ensure that S/CI provided to DUS are not returned to government contractors, other entities, or the general public as usable items (see Section 3.4.2).

5.7 Authorizing Organization Facility Management

The authorizing organization facility management shall:

- Identify and maintain a list of safety systems.
- Inspect safety systems equipment and parts for S/CI as part of the directorate self-assessment program.
- Determine appropriate control and disposition actions.
- Report S/CI or defective materials in accordance with Section 3.3.
- Attend Class #HS5955, "Suspect/Counterfeit Item Awareness Training."

6.0 Work Standards

6.1 Work Smart Standards

DOE O 440.1A, "Worker Protection Management for DOE Federal and Contractor Employees," Attachment 2, "Contractor Requirement Document," Sections 1–11, 13–18 (delete 18.a), 19 (delete 19.d.3), and 22.

6.2 Work Standards

DOE O 231.1A, "Occurrence Reporting & Processing of Operations Information," Attachment 1, "Contractor Requirements Document" (August 19, 2003).

7.0 Resources for More Information

7.1 Contacts

For further information about S/CI or for assistance, contact the following:

- S/CI SME.
- ES&H Team.
- Directorate Assurance Manager.
- Office of Investigative Services.
- S/CI specialist (Procurement and Materiel Department).

7.2 Internet Information on S/C Items

More information and resources about S/CI can be found at the following intranet address:

http://www-r.llnl.gov/es_and_h/sci/

7.3 Other Sources

Lawrence Livermore National Laboratory, *Quality Assurance Program*, Livermore, California, M-078, Rev. 3 (April 1996).

U.S. Department of Energy, *Environment, Safety & Health Bulletin*, DOE/EH-0266, Issue No. 92-4 (August 1992).

<http://www.saftek.com/worksafe/bull82.txt>

U.S. Department of Energy, Environment, Safety & Health Office of Corporate Performance Assessment, *Suspect Counterfeit Items Awareness Training*, March 2004, (password required).

<https://info.eh.doe.gov/sci/refdocs/>

U.S. Department of Energy, *Implementation Guide for use with Suspect/Counterfeit Items, Requirements of DOE O 440.1A, Worker Protection Management; 10 CFR 830.120; and DOE 5700.6C, Quality Assurance*, June 1997.

<http://www.alrc.doe.gov/ehs/other/g4401-6.pdf>

7.4 Lessons Learned

For Lessons Learned applicable to S/CI, refer to the following intranet address:

http://www-r.llnl.gov/es_and_h/lessons/lessons.shtml

Appendix A

Definitions

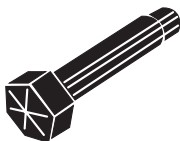
Counterfeit Item	<p>A suspect item that is a copy or substitute produced without legal right or authority to do so, or an item whose material, performance, or characteristics are knowingly misrepresented by the vendor, supplier, distributor, or manufacturer.</p> <p>An item that does not conform to established requirements is not normally considered an S/CI if the non-conformity results from one or more of the following conditions: an item defective as a result of inadequate design or production quality control; an item damaged during shipping, handling, or storage; an item improperly installed; an item deteriorated during service; an item degraded during removal; or an item that has failed due to aging or misapplication. Through LLNL procedures, such items are controlled as non-conforming items.</p>
Suspect Item	<p>An item by which there is an indication by visual inspection, testing, or other information that it may not conform to established government- or industry- accepted specifications or national consensus standards.</p>
Defective Item or Material	<p>Any item or material that does not meet the commercial standard or procurement requirements as defined by catalogues, proposals, procurement specifications, design specifications, testing requirements, contracts, or the like. It does not include parts or services that fail or are otherwise found to be inadequate because of random failures or errors within the accepted reliability level.</p>
Safety Class SSCs (SC-SSCs)	<p>Safety class structures, systems, and components. 10CFR830 defines SC-SSCs as including portions of process systems, whose preventive or mitigative function is necessary to limit radioactive or hazardous material exposure to the public, as identified by the documented safety analysis (DSA).</p>

Safety Significant SSCs (SS-SSCs)	Safety significant structures, systems, and components. 10CFR830 defines SS-SSCs as those structures, systems, and components not designated as SC-SSCs but whose preventive or mitigative function is a major contributor to defense in depth and/or worker safety, as determined from safety analysis.
Safety Systems	LLNL considers safety systems to be specifically those items listed in Appendix C for the purposes of S/CI.

Appendix B

DOE Suspect Fastener Headmark List

Any fastener on this list may be considered defective without further testing.



ALL GRADE 5 AND GRADE 8 FASTENERS OF FOREIGN ORIGIN WHICH DO NOT BEAR ANY MANUFACTURERS' HEADMARKS:



GRADE 5



GRADE 8

GRADE 5 FASTENERS WITH THE FOLLOWING MANUFACTURERS HEADMARKS:



MARK MANUFACTURER

J Jinn Her (TW)



MARK MANUFACTURER

KS Kosaka Kogyo (JP)

GRADE 8 FASTENERS WITH THE FOLLOWING MANUFACTURERS' HEADMARKS:

MARK MANUFACTURER



A Asahi Mfg (JP)



NF Nippon Fasteners (JP)



H Hinomoto Metal (JP)



M Minamida Sleybo (JP)



MS Minato Kogyo (JP)



**Hollow Infasca (CA TW JP YU) Greater than 1/2 inch dia.)
Triangle**



E Dalai (JP)



KS Kosaka Kogyo (JP)



RT Takai Ltd (JP)



FM Fastener Co of Japan (JP)



KY Kyoei Mfg (JP)



J Jinn Her (TW)



UNV Unytite (JP)

GRADE 8.2 FASTENERS WITH THE FOLLOWING HEADMARKS:



MARK MANUFACTURER

KS Kosaka Kogyo (JP)

GRADE A325 FASTENERS (BENNETT DENVER TARGET ONLY) WITH THE FOLLOWING HEADMARKS:

Type 1



A325 KS

Kosaka Kogyo (JP)

Type 2



Type 3



Key: CA-Canada, JP-Japan, TW-Taiwan, YU-Yugoslavia

Appendix C

Inspection Items and Responsibilities

The Contractor Requirements Document (CRD) requires inspection of “safety systems (LLNL considers safety systems to be specifically those items listed in the table below for the purposes of S/CI), and applications that create potential hazards.” Inspection basically consists of a visual inspection of installed equipment or parts in storage bins; a “tear down” of equipment is not included unless there are clear indicators of S/CI during the visual inspection.

A service organization, after identifying the institutional “safety systems and applications that create potential hazards” among equipment owned or maintained under agreement with the facility manager, inspects such equipment for S/CI.

A facility manager identifies the facility-owned “safety systems and applications that create potential hazards” among equipment he/she owns or maintains in his/her facility. Once identified, the associated equipment and parts should be inspected for S/CI.

When experimental or facility-type equipment is identified as requiring S/CI inspection, the Maintenance/Operations Division or Construction Management Inspectors (Plant Engineering Department) or UTEL Utility groups can be requested to perform the inspection and provide appropriate documentation.

The following is a list of items to be inspected and the individual or organization responsible for each.

Safety Systems	Component	Responsibility
Systems and components identified in Safety Basis Documents and Documented Safety Analysis as required controls	Fasteners and other parts of concern	Facility or program manager inspects.
Cranes (e.g., jib cranes, traveling cranes, motorized hoists, and chain-fall hoists)	Lifting rigging and fasteners in mechanisms	Plant Engineering (PE) inspects all cranes and has S/CI on the checklist.
Elevators (e.g., people and service elevators and man-lifts)	Lifting rigging and fasteners in mechanisms	PE inspects all elevators and man-lifts.
Lifts (e.g., dock lifts, cherry pickers, and scissors lifts)	Lifting rigging and fasteners in mechanisms	Facility managers inspect lifts in their facilities and in equipment they own.
Tailgate lifts, fork trucks, and fleet hydraulic lifts	Lifting rigging and fasteners in mechanisms	Fleet Management inspects.

Safety Systems	Component	Responsibility
Emergency generators and uninterruptible power supply battery racks	Transfer switches and fasteners in anchors	UTEL inspects those items associated with a hazard ranked facility.
Emergency ventilation and filter systems	Atmospheric seals and fasteners in structural supports	Hazards Control inspects seals on HEPA filters during changeout. PE inspects structures prior to acceptance of installation or replacement.
Gas and utility lines in labs	Shutoff valves, pressure relief valves, and fasteners in structural supports	PE inspects prior to acceptance of the facility. Program or facility managers inspect experimental drops.
Retention tanks and expansion tanks	Shutoff valves and fasteners in structural supports	PE inspects retention tanks prior to acceptance of installation or replacement. Program or facility managers inspect expansion tanks.
Gas-fired boilers	Shutoff valves Pressure relief valves Gas trains Fasteners in structural supports for gas trains	PE inspects. ASCM certified. Any S/CI found are to be left in place. PE inspects prior to acceptance of installation or replacement. PE inspects only if the system requires bolts of grade 5 or higher.
Fire sprinkler systems and fire suppression systems	Sprinkler heads and nozzles Fasteners in structural supports	PE inspects prior to acceptance of the facility. Fire Safety Engineer maintains a list of identified suspect heads and nozzles. PE monitors all systems for malfunction. PE inspects prior to acceptance of the facility. (Required only if the system requires bolts of grade 5 or higher.)
Pressure vessels	Relief valves	Authorizing individuals (not PE) responsible for inspection.
Storage bins	Parts and fasteners	Authorizing managers inspect.
Vehicles that move hazardous materials	Fasteners in brakes and steering mechanisms	Fleet Management inspects.
Emergency electrical power systems and alarm systems	Electrical relays, circuit breakers, transformers, fuses, resistors, and switchgears	UTEL inspects. (Emergency systems are those that are electrically monitored by PE Maintenance Mechanics.)

Appendix D

Example

S/CI Self-Assessment Worksheet

Suspect/Counterfeit Items

Frequency: Triennially

Assessment No.	Assessor and Organization:
Assessment Date (s):	Facility Assessed:
Personnel Contacted:	Assessment Team:
Basis for this Self-Assessment: Document 41.3, "Suspect/Counterfeit Items," in the <i>ES&H Manual</i>	

ISM Function	No.	Assessment Attribute	Attribute Reference or Requirements	Verification/Observation/Comment
Plan	1.	List all equipment and systems your department has that must be inspected.	Document 41.3 Section 3.2.1 Appendix C	
Identify Hazard	2.a	List the person(s) responsible for ensuring that the following items are inspected: new construction prior to acceptance, safety systems, lifts, expansion tanks, pressure vessels, and storage bins?	Document 41.3 Section 3.2 Appendix C	
	2.b	Have the persons listed in 2.a completed training for S/CI?	Document 41.3 Section 4.0	
	2.c	Are the TRRs familiar with the procurement process to prevent purchase of S/CI?	Document 41.3 Section 5.2	
	2.d	Have the inspections listed in 2.a been completed?	Document 41.3 Section 3.2.1	

ISM Function	No.	Assessment Attribute	Attribute Reference or Requirements	Verification/Observation/Comment
Control Hazard	3.	Describe how the person(s) listed in 2.a and 2.c controls: 1) The introduction of S/CI 2) Identification of S/CI inadvertently introduced, and 3) Removal, isolation and control of S/CI, and disposal	Document 41.3 Section 3.1 Section 3.2 Section 3.4	
Do Work	4.a	Who maintains the list of S/CI that have been approved to "leave-in-use"?	Document 41.3 Section 3.4.1	
	4.b	Is the documentation of the "leave-in-use" acceptance maintained for each item? State location of documentation.	Document 41.3 Section 3.4.1	
	4.c	Have all S/CI that are "leave-in-use" been clearly identified and marked?		
Feedback	5.a	What S/CI deficiencies have been identified since the last assessment? What percentage has been corrected?		
	5.b	Provide a summary statement of the status of the S/CI program area in your department.		

Appendix E

Suspect/Counterfeit Item Indicators*

The following are identified by the Nuclear Regulatory Commission (NRC) as common indicators of misrepresented vendor products:

- Differences in the appearance of items in the same shipment.
- Unusual or inadequate packaging of component.
- Wear marks or scratches on painted surfaces.
- Pitting or corrosion of metallic components.
- Exterior evidence of attempted repairs.
- Missing name plate or new name plate on old components.
- Unusual location or method of attachment of identification (ID) tag.
- Improper dimensions.
- Markings stamped over ground-off casting marks.
- Photocopied (rather than original) manufacturer's or Nationally Recognized Testing Laboratory (NRTL) label (e.g., UL, FMRC, CSA).
- Missing NRTL labels on products requiring such labels.
- Excess certification logos (e.g., UL, FM, CGA, AGA) all on one valve body – usually will have one or two logos plus ANSI or ASME.
- Head marks with raised marks and depressed marks on same bolt (not normal manufacturing process).

* Summarized from: DOE Suspect/Counterfeit Items Awareness Training Manual, March 2004.

Appendix F

Suspect/Counterfeit Items Requiring Occurrence Reporting

The following is an excerpt from Document 4.3, "LLNL Implementation Procedures for DOE O 231.1A and DOE M 231.1-2, Occurrence Reporting and Processing of Operations Information," in the *ES&H Manual*. This excerpt contains examples of S/C and defective items that require occurrence reporting:

Group 4 Facility Status

#	SC*	Criterion
(1)	3	Discovery of any suspect/counterfeit item or material found in a Safety Class (SC) or Safety Significant (SS) Structure, System, or Component (SSC). A suspect item or material is one whose documentation, appearance, performance, material, or other characteristics may have been misrepresented by the vendor, supplier, distributor, or manufacturer. A counterfeit item or material is one for which sufficient evidence exists that deliberate misrepresentation has occurred.
(2)	4	Discovery of any suspect/counterfeit item or material other than office supplies, office equipment, or household products.
(3)	4	Discovery of any defective item or material, other than a suspect/counterfeit item or material, in any application whose failure could result in a loss of safety function, or present a hazard to public or worker health and safety. A defective item or material is any item or material that does not meet the commercial standard or procurement requirements as defined by catalogues, proposals, procurement specifications, design specifications, testing requirements, contracts, or the like. It does not include parts or services that fail or are otherwise found to be inadequate because of random failures or errors within the accepted reliability level.

*SC: Significance category